REMARKS

Claims 1-5 and 11-14 remain in the application for further prosecution. Claims 6-10 and 15-22 have been cancelled. Claims 1-5 have been amended.

§ 103 Rejection

Claims 1-22 were again rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,225,466 to Akao ("Akao") in view of JP 61032743 ("JP '743"). Claims 1-5 and 11-14 have been amended to correspond to the compositions included in the Declaration of Wen Wu, a copy of which is enclosed. Due to the superior physical properties of these compositions, as indicated in Wu's Declaration, these claims are now believed to be in condition for allowance.

Conclusion

It is the Applicants' belief that all of the claims are now in condition for allowance and action towards that effect is respectfully requested.

If there are any matters which may be resolved or clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at the number indicated.

Respectfully submitted,

Date: March 10, 2003

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Customer No. 30223 **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of:

Wen Pao Wu
Alan E. Deyo

Application No.: 09/850,985

Filed: May 8, 2001

For: Containers And Sheets Made Of Filled Polymer Compositions

Atty. Docket No.: 47097-01059

Examiner: Sandra M. Nolan

Group Art Unit: 1772

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231, on October 11, 2002.

Signature: Adrienne White

Adrienne White

DECLARATION OF WEN P. WU
UNDER 37 C.F.R. § 1.132

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

I, Wen Pao Wu, declare that:

1. I am a co-inventor of the invention claimed in the above-identified application.

2. I hold a degree of B.S. in Chemical Engineering from National Taiwan University in Taipei, Taiwan. I hold an M.S. in Materials Science from Washington State University in Pullman, WA. I also hold an M.S. and a D.Sc. in Chemical Engineering from Washington University in St. Louis, MO.

3 Since 1981, I have worked in the areas of rigid polymeric container research and development, and foam research and development for Mobil Chemical Plastics Division and for Tenneco Packaging Inc., which acquired Mobil Chemical Plastics Division in 1995. In 1999,

Tenneco Packaging Inc. was renamed to Pactiv Corporation. I have worked in a variety of positions in rigid polymeric container research and development, and polymeric processing. Currently, I am Manager of Development Engineering with responsibilities in research and development in the areas of rigid polymeric containers and foam.

4. I have reviewed the above-identified application, the office action dated July 2, 2002, U.S. Patent No. 5,225,466 to Akao and the JP 61032743A abstract.

5. The term "impact copolymer polypropylene" is a term that is known to those skilled in the art of making polymeric containers. Impact copolymer polypropylenes are physical mixtures of homopolymer polypropylene and random copolymer polypropylene. *See, e.g.*, Exhibit B ("Handbook of Polypropylene and Polypropylene Composites" that describes various types of polypropylenes).

6. In order to better understand the unexpected results produced by the present invention, Table 1 from the present application at page 8 is shown and discussed below.

Table 1

Mechanical Properties Of Mineral Filled Polypropylene[1]

Example	Total Filler Level[2] (%)	HAR[3]/LAR[4] ratio	Flexural Modulus (Kpsi)	Tensile Modulus (Kpsi)	Gardner Impact MFE (in-lbs)
Example 1	41.3	100/0	555	410	3.0
Example 2	50.7	100/0	703	540	1.6
Example 3	60.1	100/0	871	619	0.4
Example 4	44.8	75/25	515	398	5.8
Example 5	52.6	75/25	630	446	4.4
Example 6	60.5	75/25	768	586	3.3
Example 7	42.3	60/40	489	359	5.9
Example 8	54.4	60/40	669	517	4.3
Example 9	61.5	60/40	741	557	2.4
Example 10	40.9	50/50	448	316	9.2
Example 11	45.5	50/50	488	328	9.7
Example 12	62.0	50/50	748	468	8.6
Example 13	40.1	40/60	407	301	11.0
Example 14	50.6	40/60	483	355	10.8
Example 15	58.6	40/60	591	420	12.3
Example 16	37.8	25/75	361	263	13.6
Example 17	49.4	25/75	443	278	14.6
Example 18	54.2	25/75	520	305	21.2
Example 19	37.6	0/100	279	206	21.8
Example 20	51.8	0/100	314	248	22.6
Example 21	59.6	0/100	323	359	34.6

[1] PP homopolymer, melt flow rate (MFR) = 0.8.
[2] Filler level calculated based on Equation (1).
[3] High Aspect Ratio filler used was Luzenac JetFil® 575 talc.
[4] Low Aspect Ratio filler used was OMYACarb® FT calcium carbonate.

As shown in Table 1, the flexural modulus, tensile modulus and the Gardner Impact values are shown for several tested polymeric-filled sheets. Examples 1-21 used seven different ratios of

High Aspect Ratio (HAR) filler to Low Aspect Ratio (LAR) filler. Each ratio was tested at three different weight percents of filler in the sheets. The weight percent of filler varied in each test from about 37% to about 62%. The process of forming Examples 1-21 and the testing procedures are described at page 7 of the above-identified application.

7. As shown in the Inventive Examples 10-18, the tested properties of the polymeric-filled sheet were generally improved as the amount of filler increased with the ratio of the high aspect ratio filler to the low aspect ratio filler (HAR/LAR ratio) remaining constant. It was surprising that at a constant HAR/LAR ratio in Inventive Examples 10-18 that the Gardner Impact values remained about the same or even increased in value when the amount of filler increased in the sheet. *See* Table 1 above with Inventive Examples 10-12 (9.2, 9.7, 8.6 in-lbs), Inventive Examples 13-15 (11.0, 10.8, 12.3 in-lbs) and Inventive Examples 16-18 (13.6, 14.6, 21.2 in-lbs), and page 9, lines 16-18 of the application. As shown in Table 1 above, the flexural modulus and tensile modulus also increased in Inventive Examples 10-18 when the filler amount was increased at a constant HAR/LAR ratio. Compare Inventive Examples 10-12, 13-15 and 16-18 in Table 1 above.

8. The polymeric-filled sheets of Inventive Examples 10-18 had a desirable combination of properties (flexural modulus, tensile modulus and Gardner Impact). Page 9, lines 18-19.

9. The Comparative Examples 1-9 and Examples 19-21, on the other hand, did not have a desirable combination of properties as compared to Inventive Examples 10-18. Specifically, the Gardner Impact values of Comparative Examples 1-9 were relatively small and decreased as the amount of filler increased at a constant HAR/LAR ratio. *See* Table 1 above with

Comparative Examples 1-3 (3.0, 1.6, 0.4 in-lbs), Comparative Examples 4-6 (5.8, 4.4, 3.3 in-lbs) and Comparative Examples 7-9 (5.9, 4.3, 2.4 in-lbs), and page 9, lines 3-4 of the present application. Comparative Examples 19-21 had desirable Gardner Impact values that increased as the amount of filler increased, but had lower flexural modulus and tensile modulus than is generally desired. *See* Table 1 and page 9, lines 23-26 of the above-identified invention.

10. I hereby declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: October 9, 2002

Wen Pao Wu